

April 29, 2016

MEMORANDUM FOR: Distribution Email

FROM: Christine Caruso Magee  
Configuration Manager, NCEP Central Operations

SUBJECT: Scheduled Operational Changes and Upgrades for  
CPC, OPC, and WPC - corrected

**Climate Prediction Center**

The following accelerated items were implemented this past week:

None

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The following will be implemented the week of May 2, 2016:

None

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The following RFCs are in progress or have been delayed:

RFC #634 – CPC generates 5 and 7 day avg SST grids. The input dataset from NCO/IDSB/Dataflow was late one day in early April, resulting in a script failure. To mitigate this problem, the time this process runs is being changed to allow more time for the upstream data to be available. This requires an edit to a date command in the driver script, and a time change in the crontab. Was to be implemented on April 28 at 1200Z.

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The following NCO RFCs to be implemented the week of May 2, 2016 may affect CPC:

RFC #1903 – WCOSS: Modify esub on the Crays to require the following: 1) wall-clock limit; 2) correct queue name; 3) job name; 4) do not submit an intelmpi job to shared queues; and 5) do not request cpu-affinitization for serial jobs. Jobs that violate these changes will be rejected. To be implemented on May 3 at 1700Z.

RFC #1904 – WCOSS: Install ICS 15.0.6 and 16.0.2 - IBM will update the versions of the Intel Compiler Suite (ICS) available on both the IBM and Cray components of WCOSS. Developers have requested these newer versions for feature and performance improvements. At this time these versions will be added to the systems but will not be made the default version. To be implemented on May 4 at 1400Z.

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The following NCO RFCs are in progress and may affect CPC:

RFC #1756 - NetCDF4-Python v4-1.2.1 - IBM will install the Python NetCDF4 software on Luna and Surge in /gpfs/hps/usrx/local/prod. This software reads and writes NetCDF files. Implementation began on March 7 at 1600Z; was to be completed by March 21 but IBM has found they need to install HDF5 and NetCDF first on the Crays in order to properly install this software. Ongoing issues have caused this implementation's completion date to be changed to TBD.

RFC #1848 - Limit the use of cron on operational CPC CF systems to operational accounts only. CPC has requested this to prevent jobs from being set up to run for test accounts on operational systems. Was to be implemented the week of April 25 but was postponed due to Critical Weather Day status. New completion date is TBD.

RFC #1864 – WCOSS – Work is being done on the Crays to add 2 new service blades containing 2 nodes each for DVS/GPFS services. There will be a 3 hour outage on May 3 to continue this work on the development Cray (Surge). The same work will be done on Luna after the next production switch on May 11. Implementation began on April 28, and this work should be completed by May 31.

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### **Ocean Prediction Center**

The following accelerated items were implemented this past week:

RFC #635 – Updated the IDP/Compute Farm GOES SST processing due to a termination of source data that had been retrieved from NESDIS. The replacement data (RTGSSTHR) is provided by EMC via NCO's Dataflow team. Implemented on April 22 at 2050Z.

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The following will be implemented the week of May 2, 2016:

RFC #636 - Pac\_include\_graphical\_forecasts.shtml v16.05.02 - The 24 hour Pacific thumbnail sizes are being enlarged around 25% on OPC's home page, per management request. See [http://www.opc.ncep.noaa.gov/Pac\\_tab.shtml](http://www.opc.ncep.noaa.gov/Pac_tab.shtml). To be implemented on May 2 at 1130Z.

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The following RFCs are in progress:

None

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The following RFC has been delayed:

RFC #630 – opc\_woc\_mirrors\_monitor.pl v2016.04.25 - Disable the crontab that monitors the WOC mirror web farms. OPC will be hosting its website directly from NCWCP infrastructure beginning April 25, 2016. Was to be implemented on April 25 at 1130Z; new implementation date is TBD, since additional changes must be made.

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The following NCO RFCs to be implemented the week of May 2, 2016 may affect OPC:

RFC #1894 - Turn off ingest of NESDIS file PRD.SST.FIELD.KM50 (WCOSS /dcom filename) by removing job JISSTFLD from the NCEP Production Job Suite on WCOSS. This dataset will no longer be available from NESDIS on May 3. Production job JINAMSST will be modified as well to remove processing of this file. To be implemented on May 3 at 1200Z.

RFC #1903 – WCOSS: Modify esub on the Crays to require the following: 1) wall-clock limit; 2) correct queue name; 3) job name; 4) do not submit an intelmpi job to shared queues; and 5) do not request cpu-affinitization for serial jobs. Jobs that violate these changes will be rejected. To be implemented on May 3 at 1700Z.

RFC #1904 – WCOSS: Install ICS 15.0.6 and 16.0.2 - IBM will update the versions of the Intel Compiler Suite (ICS) available on both the IBM and Cray components of WCOSS. Developers have requested these newer versions for feature and performance improvements. At this time these versions will be added to the systems but will not be made the default version. To be implemented on May 4 at 1400Z.

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The following NCO RFCs are in progress and may affect OPC:

RFC #1864 – WCOSS – Work is being done on the Crays to add 2 new service blades containing 2 nodes each for DVS/GPFS services. There will be a 3 hour outage on May 3 to continue this work on the development Cray (Surge). The same work will be done on Luna after the next production switch on May 11. Implementation began on April 28, and this work should be completed by May 31.

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The following NCO RFCs, which may affect OPC, were approved with an implementation date TBD:

RFC #1357 – RTOFS global v1.1.0 – Major upgrade of the Global RTOFS model. See the TIN at: <http://www.nws.noaa.gov/os/notification/tin15-36global-rtofsaaa.htm> for details. This was advertised as having an October 6 implementation date but this implementation is being postponed due to a delay in the Navy's HYCOM model upgrade. Once the HYCOM upgrade is implemented, the Global RTOFS will be scheduled for implementation. The Navy hopes to upgrade HYCOM in FY16Q3. Notification will be given in advance so users may prepare for any changes which may affect them. This upgrade of the Global RTOFS was approved by the NCEP Director.

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**Weather Prediction Center**

The following accelerated items were implemented this past week:

None

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The following will be implemented the week of May 2, 2016:

RFC #637 - Add new scripts to the Compute Farm which will read a grib2 data set created by the Denver SOO, containing Quasi-Geostrophic (QG) omega and other QG diagnostics for the NAM, GFS and EC, and then convert this data to GEMPAK grid files for display in NMAP for WPC forecasters. NCO/IDSB/Dataflow is bringing this data in from NWS Central Region and it's being stored on IDP. The

WPC scripts will read the data from IDP. To be implemented beginning May 3 at 1600Z and should be completed by May 17.

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The following RFCs are in progress:

None

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The following NCO RFCs to be implemented the week of May 2, 2016 may affect WPC:

None

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The following NCO RFCs are in progress and may affect WPC:

None

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Please note that security-related RFCs are never listed in the RFC memo.

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---- OPERATIONAL ANNOUNCEMENTS ----

1. The CPC/OPC/WPC Configuration Management documents are available at <https://sites.google.com/a/noaa.gov/nws-ncep-nco-cm/>.

Please review these documents if you have questions prior to submitting changes for CPC/OPC/WPC configurable items.

2. Users who wish to view their network utilization via the Scrutinizer appliance may request access from NCO/IWSB. Please send an account request to the NCWCP Helpdesk at [NCWCP.helpdesk@noaa.gov](mailto:NCWCP.helpdesk@noaa.gov).